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Published:

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND NUCLEIC ACIDS FOR THE ANALYSIS OF METHYLATION PATTERNS WITHIN THE DD3

(57) Abstract: The disclosed invention provides methods and sequences for the analysis of methylation patterns within the 5' and promoter regions of the gene DD3.

INTERNAMINAL SEARCH REPORT



Relevant to claim No.

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12Q1/68

C. DOCUMENTS CONSIDERED TO BE RELEVANT

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Category °

Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12Q C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

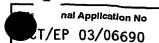
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, EPO-Internal, BIOSIS, EMBASE, WPI Data, PAJ

Citation of document, with indication, where appropriate, of the relevant passages

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L	SEQ ID NO. 3 & DATABASE EMBL 23 September 2002 (2002-09-23) SUN ET AL.: "Human PSNA cDNA, P Database accession no. AAD38815 the whole document	ro123"	1–40	
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X Furt	her documents are listed in the continuation of box C.	X Patent family members are listed	in annex.	
"A" docume consider if earlier of filling of the citation of the right of the right in the right	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but than the priority date claimed	"T" later document published after the inte or priority date and not in conflict with cited to understand the principle or the invention "X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the do document of particular relevance; the cannot be considered to involve an integration of the considered to involve an integration of the same patent "&" document is combined with one or moments, such combination being obvious in the art.	evance; the claimed invention but by the claimed invention over or cannot be considered to be when the document is taken alone evance; the claimed invention involve an inventive step when the with one or more other such docunate being obvious to a person skilled	
1	actual completion of the international search 8 September 2003	Date of mailing of the international sea		
	mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Aguilera, M		

INTERNATIONAL SEARCH REPORT



.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	T/EP 03/06690
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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x	the whole document & WO 01 60860 A (MILLENNIUM PREDICTIVE MEDICINE INC.) 23 August 2001 (2001-08-23) page 1863	1-40
X	WO 97 20924 A (QUADRIFOGLIO FRANCO ;SAICOM S R L (IT); SCAGGIANTE BRUNA (IT)) 12 June 1997 (1997-06-12) page 11; example 4	1-40
X	WO 98 45420 A (DIAGNOCURE INC ;BUSSEMAKERS MARION J G (NL)) 15 October 1998 (1998-10-15) figure 4; example 3	1-40
X	& DATABASE EMBL 30 December 1998 (1998-12-30) BUSSEMAKERS MJG: "Prostate cancer antigen PCA3 gene transcription start site" Database accession no. AAV33791 the whole document	1-40
X	BUSSEMAKERS M J G ET AL: "DD3: NEW PROSTATE-SPECIFIC GENE, HIGHLY OVEREXPRESSED IN PROSTATE CANCER" CANCER RESEARCH, AMERICAN ASSOCIATION FOR CANCER RESEARCH, BALTIMORE, MD, US, vol. 59, 1 December 1999 (1999-12-01), pages 5975-5979, XP002923011 ISSN: 0008-5472 the whole document	1-40
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C (C4	Miles) POCUMENTO COMPANIES	T/EP 03	706690
Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages		
	appropriate, or the relevant passages		Relevant to claim No.
A	GITAN RAAD S ET AL: "Methylation-specific oligonucleotide microarray: a new potential for high-throughput methylation analysis" GENOME RESEARCH, COLD SPRING HARBOR LABORATORY PRESS, US, vol. 12, no. 1, January 2002 (2002-01), pages 158-164, XP002208051 ISSN: 1088-9051 the whole document		
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claim 41 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.1

Claims Nos.: 41

Although claim 41 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.2

Claims Nos.: 1-40 (all partially)

In view of the large number of independent claims and also the obscure dependency structure of the claims presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of PCT Article 6 (see also PCT Rule 6.1(a)) to such an extent that a meaningful search on the basis of the claims is impossible.

In addition, claims 9-41 relate to an extremely large number of possible products, and uses of said products. The claims comprise a virtually infinite number of combinations of "at least two oligomers" of "at least 10 nucleotides" from five sequences of 3581 nucleotides each in different configurations and uses. In fact, the claim contains so many options that a lack of conciseness within the meaning of PCT Article 6 arises to such an extent as to render a meaningful search of said claims impossible.

Consequently, the search has been carried out for those parts of the claims which

appear to be clear and concise, namely methods for the analysis of cell proliferative disorders comprising the determination of the methylation state of the DD3 promoter region defined by SEQ ID NO.1 to 5, oligonucleotides of at least 10 nucleotides according to sequences SEQ ID NO.1 to 5, and arrays of said oligonucleotides or equivalent oligomers.

The applicant's attention is drawn to the fact that claims relating to inventions in

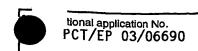
respect of which no international search report has been established need not be

the subject of an international preliminary examination (Rule 66.1(e) PCT). The

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

applicant is advised that the EPO policy when acting as IPEA is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.



Box i	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This Inter	mational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X	Claims Nos.: 41 because they relate to subject matter not required to be searched by this Authority, namely:
	see FURTHER INFORMATION sheet PCT/ISA/210
2. X	Claims Nos.: 1-40 (all partially) because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
	see FURTHER INFORMATION sheet PCT/ISA/210
	Claims Nos.:
	because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a). Observations where unity of invention is leaking (Continued in accordance with the second and third sentences of Rule 6.4(a).
	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Inte	rnational Searching Authority found multiple inventions in this international application, as follows:
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1.	As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.
	
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this International Search Report
	covers only those claims for which fees were paid, specifically claims Nos.:
4.	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
	restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
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Remark	on Protest
	The additional search fees were accompanied by the applicant's protest.
	No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

nal Application No T/EP 03/06690

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	atent document I in search report		Publication date		Patent family member(s)	Publication date
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